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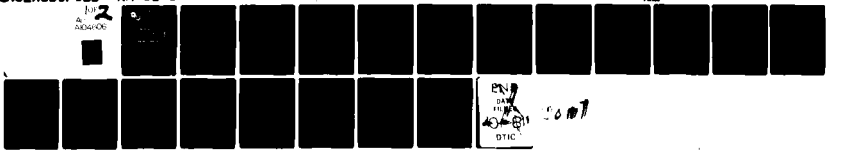

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United States Army
Recruiting Command

RESEARCH MEMO 81-1 AD

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Age Group 22 and Over

A Good Source

of

High Mental Ability Recruits

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By

F. DAVID COLEMAN

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June 1981

Approved for Public Release;
Distribution Unlimited

Research, Studies and Evaluation Division
Program Analysis and Evaluation Directorate
Fort Sheridan, Illinois 60037

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AGE GROUP 22 AND OVER -- A GOOD SOURCE OF HIGH MENTAL ABILITY RECRUITS

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F. DAVID COLEMAN and JURI TOOMEPUU

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U.S. ARMY RECRUITING COMMAND
RESEARCH, STUDIES, AND EVALUATION DIVISION
PROGRAM ANALYSIS AND EVALUATION DIRECTORATE

Fort Sheridan, Illinois 60037

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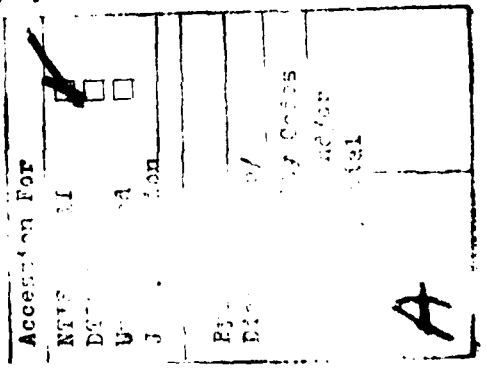

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AGE GROUP 22 AND OVER - A GOOD SOURCE OF HIGH MENTAL ABILITY RECRUITS

ABSTRACT

The Army is striving to improve its combat and cost effectiveness by recruiting a larger number of individuals of higher mental quality. Current recruiting statistics indicate that Army recruits who are over 21 years old tend to score higher on mental aptitude tests than their younger counterparts. This fact, coupled with the projected upward shift in the age distribution of the U.S. population, makes the 22 and older age group a lucrative source of high aptitude soldiers. This Research Memorandum presents FY 81 soldier accession statistics by age group, AFQT category, sex, and education, and projects increases in accession of high aptitude soldiers that would result from increasing the proportion of the over 21-year-old group in total accessions. A discussion of the effects of unemployment rates on recruiting of the older group is included, and recommended actions are proposed for increasing the enlistment of people who are over 21 years old.

I. INTRODUCTION

Purpose

Numerous studies and historical combat results (Toomepuu 1981) provide concrete evidence of high positive correlation between the mental aptitude of soldiers and their combat and cost effectiveness. This analysis of the 22 and above age group was prompted by the Army's need to improve its combat and cost effectiveness by increasing the accession of individuals who score in the top 50 percentile in the Armed Forces Qualification Test (AFQT) portion of the Armed Forces Vocational Aptitude Battery (ASVAB). The top 50 percentile includes categories I, II, and IIIA (the upper half of III), of the five AFQT categories.

Background

The premise that the 22 and older age group is a lucrative source of high aptitude soldiers is based on the following facts:

- o The 17- through 21-year-old manpower supply is decreasing and is expected to continue to do so for the remainder of the century.
- o The members of the over 21-year-old group who join the Army are of substantially higher mental aptitude than the 17- through 21-year-age group.
- o At the current accession rates, the 22 and over age group represents nearly 23 percent of total accessions.

The higher AFQT scores of the older group can be attributed mainly to two causes. First, there is some evidence that the normal learning process that most people go through in their teens and twenties increases their performance on written aptitude tests such as the AFQT (Anatasi 1958, McNaught 1980). Secondly, it is reasonable to believe that the differences in scores

reflect the factors that motivate people of differing ages and aptitudes to join the Army, i.e., we are actually attracting the higher aptitude segments of the older age groups.

An attempt to determine the relative contribution of these casual factors to the observed relationship between age and AFQT score would be interesting, but beyound the scope of this research memorandum.

In any case, the Army clearly benefits from people with higher AFQT scores. Numerous studies have validated the AFQT as a good predictor of trainability and job performance of soldiers. The current series of ASVAB (series 8, 9, and 10), along with its AFQT portion, has been validated against a good sampling of job performance and training tests (Maier and Grafton 1981).

II. THE MARKET

Age Distribution in the Population

The impact of reduced birth rates in the 1960's and 1970's will be felt well into the next century. As shown in figure 1, the peak in our birth rate in the years from 1956 to 1958 is reflected in the peaking and subsequent decline of the 17- through 21-year-old group, during the 3-year period from 1977 to 1979. This group is traditionally considered the prime source of military manpower. The same cohort will be the 22- through 26-year age group in the period from 1981 to 1983, and continue to be the largest cohort of young people as long as our definition of "young" applies to them.

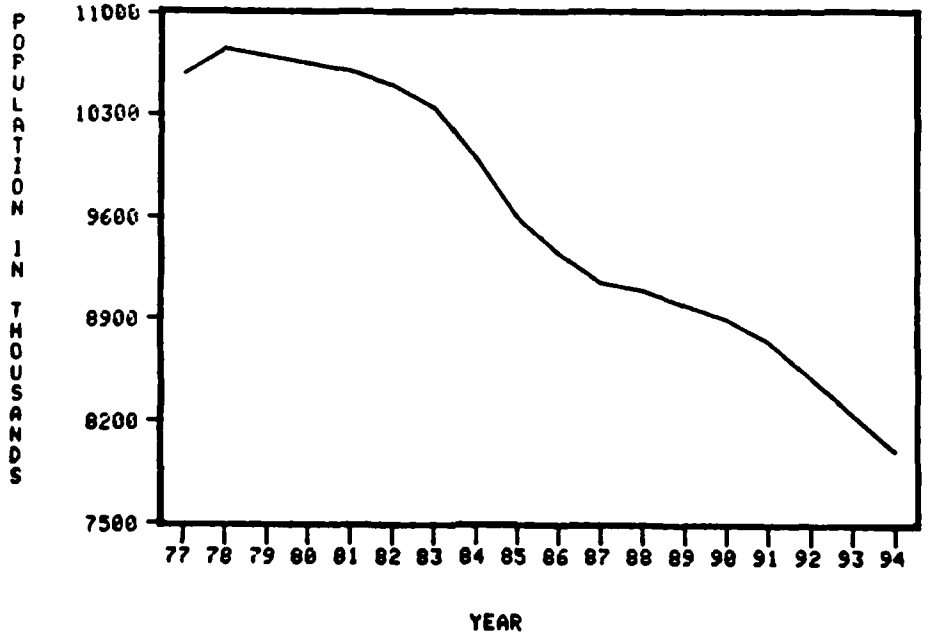

Figure 1. Projection of U.S. 17- through 21-year-old male population.

SOURCE: US Department of Navy, Naval Research Advisory Committee, Report on Man Machine Technology in the Navy, NRAC 80-9, Washington, DC: Office of the Assistant Secretary of the Navy (Research, Engineering and Systems), December 1980, p.7.

Figure 2 shows the projected changes in the age distribution of the population through 1990. Demographic trends indicate that by 1990, the 16- through 19-year-old age group will undergo the greatest decrease. The 20- through 24-year group will decrease at a lower rate, and the 25 through 34 and 35 through 44 groups will increase substantially.

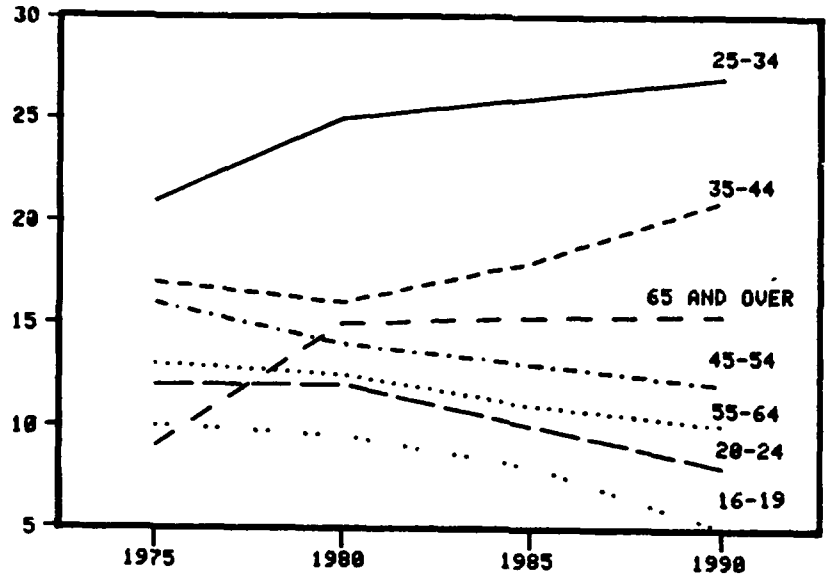

Figure 2. Age distribution in total U.S. population.

Assumptions

The projection of the AFQT category distribution of recruits, if the accession of the 22 and over age group were increased, is based on the fiscal year 81 accession data shown in accompaning tables and on the following assumptions:

o The FY 81 recruiting mission will be achieved across age/mental category group at rates consistent with the presented accession data.

o An increase in accessions in the 22 and over age group would be offset by corresponding decreases in the 17 through 21 age group.

It is not practical to increase the accessions in the 22 and over age group during the current fiscal year. However, the projected AFQT distribution resulting from a hypothetical increase provides useful insights for developing the recruiting marketing plan for future years.

III. FOCUS ON AGE GROUP 22 YEARS AND OVER

Non-Prior-Service (NPS) Males

Of the total male non-prior service accessions, the 22 and over age group represents almost 21 percent, with over half of them in AFQT category I through IIIA. Table 1 shows the FY 81 NPS male accessions by age and AFQT category.

Table 1. Army FY 81 NPS male accessions by age and AFQT category.

AGE	AFQT CATEGORY [a]							TOTAL[b]
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB-IV	
17	25 .5%	830 15.0%	1,149 20.8%	2,004 36.3%	3,082 55.9%	430 7.8%	3,512 63.7%	5,516 9.3%
18	131 1.1%	2,178 18.1%	2,262 18.8%	4,571 38.0%	4,851 40.3%	2,611 21.7%	7,462 62.0%	12,023 20.3%
19	249 1.7%	2,994 20.8%	2,487 17.2%	5,730 39.7%	4,451 30.9%	4,235 29.4%	8,686 60.3%	14,416 24.3%
20	205 2.2%	2,086 21.9%	1,589 16.7%	3,880 40.8%	2,772 29.2%	2,852 30.0%	5,624 59.2%	9,504 16.0%
21	166 3.0%	1,329 24.1%	950 17.2%	2,445 44.3%	1,472 26.7%	1,602 29.0%	3,074 55.7%	5,519 9.3%
17-21	776 1.6%	9,417 20.0%	8,437 18.0%	18,630 39.6%	16,628 35.4%	11,730 25.0%	28,358 60.4%	46,978 79.2%
22 +	698 5.6%	3,808 30.9%	2,029 16.5%	6,535 53.0%	3,027 24.6%	2,760 22.4%	5,787 47.0%	12,322 20.8%
[c] TOTAL	1,474 2.5%	13,275 22.3%	10,466 17.6%	25,165 42.4%	19,655 33.1%	14,490 24.5%	34,155 57.6%	59,320 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.
a. Number and percentage of AFQT category in age group.
b. Number and percentage of total accessions in age group.
c. Number and percentage of total accessions by AFQT category.

The younger the age of the male soldier, the smaller the number of those in a high mental category. For example, only 1.6 percent of the 17- through 21-year group is in category I, as compared with nearly 6 percent of the 22 and over group. Only 39.6 percent of the 17- through 21-year group falls in the I-IIIA category, as compared with 53 percent of the 22 and over group.

At current rates, a total take of 20,384 in the 22 and over group can be projected for FY 81. Of these, 10,804 would be in AFQT category I through IIIA. Had we increased the proportion of this group, at current AFQT score/age distribution, we would have gained more category I through IIIA soldiers, as shown in table 2.

Table 2. Projected increase in NPS male category I through IIIA accessions, resulting from increased take in age group 22 and over.

Percent increase of 22 and over group	Increase in I-IIIA	Percent increase in I-IIIA
25% (20.8% to 26% of total)	682	1.6
50% (to 31.2% of total)	1365	3.2
75% (to 36.4% of total)	2048	4.9
100% (to 41.6% of total)	2631	6.5

Non-Prior-Service Females

For female NPS accessions (table 3), the 22 and over category represents just over 32 percent of the total, with over half of the recruits in AFQT category I through IIIA.

Table 3. Army FY 82 NPS female accessions by age and AFQT category.

AGE	AFQT CATEGORY [a]							TOTAL[b]
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB-IV	
17	4 1.2%	76 22.8%	62 18.7%	142 42.7%	137 41.2%	53 16.0%	190 57.2%	332 2.9%
18	18 .9%	365 19.1%	348 18.1%	731 38.1%	686 35.8%	501 26.1%	1,187 61.9%	1,918 16.7%
19	30 1.1%	526 19.2%	454 16.5%	1,010 36.8%	891 32.5%	841 30.7%	1,732 63.2%	2,742 23.9%
20	26 1.6%	331 20.2%	252 15.3%	609 37.1%	544 33.1%	489 29.8%	1,033 62.9%	1,642 14.3%
21	23 2.0%	262 23.0%	192 16.8%	477 41.8%	372 32.6%	291 25.6%	663 58.2%	1,140 9.9%
17-21	101 1.3%	1,560 20.1%	1,308 16.8%	2,969 38.2%	2,630 33.8%	2,175 28.0%	4,805 61.8%	7,774 67.8%
22 +	152 4.1%	1,186 32.2%	666 18.1%	2,004 54.4%	1,020 27.7%	660 17.9%	1,680 45.6%	3,684 32.2%
TOTAL[c]	253 2.2%	2,746 24.0%	1,974 17.2%	4,973 43.4%	3,650 31.9%	2,835 24.7%	6,485 56.6%	11,458 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.
a. Number and percentage of AFQT category in age group.
b. Number and percentage of total accessions in age group.
c. Number and percentage of total accessions by AFQT category.

Only 1.3 percent of the 17- through 21-year female age group are in category I, and 38 percent in categories I through IIIA. Of those over 21, 4.1 percent are category I, and 54 percent are in cateogries I through IIIA.

At current rates, a total take of 5,764 females can be projected for FY 81. Of these, 3135 would be in AFQT category I through IIIA. Increasing the take of the over 21 age group, at current AFQT distribution rates, would yield the increases in category I through IIIA accessions shown in table 4.

Table 4. Projected increase in NPS female category I through IIIA accessions, resulting from increased take in age group 22 and over.

Percent increase of 22 and over group	Increase in I-IIIA	Percent increase in I-IIIA
25% (32.2% to 40.2% of total)	232	2.9
50% (to 48.3% of total)	466	5.9
75% (to 56.3% of total)	698	8.9
100% (to 64.4% of total)	933	12.0

Non-Prior-Service Males and Females With High School or Higher Education

For men and women with high school or higher education, the 22 and over group represents over 26 percent of the total take, with well over half in AFQT category I through IIIA. Table 5 shows the data by age and AFQT category.

Table 5. Army FY 81 NPS male and female accessions with high school or higher education, by age and AFQT category.

AGE	AFQT CATEGORY [a]							TOTAL[b]
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB-IV	
17	17 1.6%	218 21.0%	161 15.5%	396 38.1%	311 29.9%	332 32.0%	643 61.9%	1,039 2.1%
18	131 1.6%	1,792 21.7%	1,456 17.7%	3,379 41.0%	2,292 27.8%	2,576 31.2%	4,868 59.0%	8,247 16.6%
19	259 2.0%	2,945 22.2%	2,168 16.4%	5,372 40.6%	3,330 25.2%	4,536 34.2%	7,866 59.4%	13,238 26.7%
20	222 2.5%	2,040 23.4%	1,378 15.7%	3,640 41.6%	2,089 23.9%	3,024 34.5%	5,113 58.4%	8,753 17.6%
21	182 3.4%	1,372 25.9%	840 15.9%	2,394 45.2%	1,187 22.3%	1,721 32.5%	2,908 54.8%	5,302 10.7%
17-21	811 2.2%	8,367 22.9%	6,003 16.4%	15,181 41.5%	9,209 25.2%	12,189 33.3%	21,398 58.5%	36,579 73.7%
22 +	823 6.3%	4,356 33.5%	2,038 15.6%	7,217 55.4%	2,659 20.4%	3,147 24.2%	5,806 44.6%	13,023 26.3%
TOTAL[c]	1,634 3.3%	12,723 25.7%	8,041 16.2%	22,398 45.2%	11,868 23.9%	15,336 30.9%	27,224 54.8%	49,602 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.

a. Number and percentage of AFQT category in age group.

b. Number and percentage of total accessions in age group.

c. Number and percentage of total accessions by AFQT category.

The younger the recruits, with at least a high school education, the smaller is the number of them in a high mental category. For example, only 2.2 percent of the 17 through 21 group is in category I, compared to 6.3 percent of those who are older. Over 58 percent of the 17- through 21-year-old male and female accessions are in category IIIB and IV.

At current rates, the total take for FY 81 is projected to be 24,700. Of these, 13,683 would be in category I through IIIA. Increasing the take of the 22 and over age group, at current AFQT category distribution rates, would yield the increases in category I through IIIA accessions shown in table 6.

Table 6. Projected increase in NPS male and female category I through IIIA accessions with high school or higher education, resulting from increased take in age group 22 and over.

Percent increase of 22 and over group	Increase in I-IIIA	Percent increase in I-IIIA
25% (26.3% to 32.9% of total)	2860	7.0
50% (to 39.4% of total)	3708	9.2
75% (to 46% of total)	4589	11.3
100% (to 52.6% of total)	5428	13.4

Non-Prior-Service Males and Females With Less Than High School Education

A smaller percentage of NPS males and females who have not graduated from high school are in the over 21 group than in the 17 through 21 group. But even in this case, the 22 and over group represents a better quality soldier. The FY 81 mission of 22,000 NPS nongraduates has been nearly reached.

Table 7 shows that the nongraduate over 21 year old accessions represent just over 14 percent of the total. Over 44 percent of them, compared to only 35.3 percent of younger nongraduate recruits, are in category I through IIIA. At current rates, it can be projected that the total take of 22 and over nongraduates will be 3,102, with 1374 in category I through IIIA.

Table 7. Army FY 81 NPS male and female accessions with less than high school education, by age and AFQT category.

AGE	AFQT CATEGORY a							
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB IV	TOTAL[b]
17	12 .3%	688 14.3%	1,050 21.8%	1,750 36.4%	2,908 60.5%	151 3.1%	3,059 63.6%	4,809 22.7%
18	18 .3%	751 13.2%	1,154 20.2%	1,923 33.7%	3,245 56.9%	536 9.4%	3,781 66.3%	5,704 26.9%
19	20 .5%	575 14.7%	773 19.7%	1,368 34.9%	2,012 51.3%	540 13.8%	2,552 65.1%	3,920 18.5%
20	9 .4%	377 15.8%	463 19.3%	849 35.5%	1,227 51.3%	317 13.2%	1,544 64.5%	2,393 11.4%
21	7 .5%	220 16.2%	320 22.3%	529 39.0%	657 48.3%	172 12.7%	829 61.0%	1,358 6.4%
17-21	66 .4%	2,611 14.3%	3,742 20.6%	6,419 35.3%	10,049 55.3%	1,716 9.4%	11,765 64.7%	18,184 85.9%
22 +	27 .9%	638 21.4%	657 22.0%	1,322 44.3%	1,391 46.5%	274 9.2%	1,665 55.7%	2,987 14.1%
TOTAL[c]	93 .4%	3,249 15.3%	4,399 20.7%	7,741 36.6%	11,440 54.0%	1,990 9.4%	12,430 63.4%	21,171 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.
a. Number and percentage of AFQT category in age group.
b. Number and percentage of total accessions in age group.
c. Number and percentage of total accessions by AFQT category.

Increasing the take of the 22 and over age group, at current AFQT distribution rates, would yield the increases in I through IIIA accessions, shown in table 8.

Table 8. Projected increase in NPS male and female category I-IIIA accessions with less than high school education, resulting from increased accessions in age group 22 and over.

Percent increase of 22 and over group	Increase in I-IIIA	Percent increase in I-IIIA
25% (14.1% to 17.6% of total)	69	0.9
50% (to 21.2% of total)	141	1.7
75% (to 24.7% of total)	210	2.6
100% (to 28.2% of total)	343	4.3

The Total Picture

Table 9 recapitulates the data for all NPS accessions by age and AFQT category.

Table 9. Army FY 81 NPS total accessions by age and AFQT category.

AGE	AFQT CATEGORY [a]							TOTAL [b]
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB-IV	
17	29 0.5%	906 15.5%	1,211 20.7%	2,146 36.7%	3,219 55.0%	483 8.3%	3,702 63.3%	5,848 8.2%
18	149 1.1%	2,543 18.2%	2,610 18.7%	5,302 38.0%	5,537 39.7%	3,112 22.3%	8,649 62.0%	13,951 19.7%
19	279 1.6%	3,520 20.5%	2,941 17.1%	6,740 39.2%	5,342 31.1%	5,076 29.7%	10,418 60.8%	17,158 24.2%
20	231 2.0%	2,417 21.7%	1,841 16.5%	4,489 40.3%	3,316 29.8%	3,341 29.9%	6,657 59.7%	11,146 15.7%
21	189 2.8%	1,592 23.9%	1,142 17.2%	2,923 43.9%	1,844 27.6%	1,893 28.4%	3,737 56.1%	6,660 9.4%
17-21	877 1.6%	10,978 20.0%	9,745 17.8%	21,600 39.4%	19,258 35.2%	13,905 25.4%	33,163 60.6%	54,763 77.3%
22 +	850 5.3%	4,994 31.2%	2,695 16.8%	8,539 53.3%	4,050 25.3%	3,421 21.4%	7,471 46.7%	16,010 22.7%
TOTAL [c]	1,727 2.4%	15,972 22.6%	12,440 17.6%	30,139 42.6%	23,308 32.9%	17,326 24.5%	40,634 57.4%	70,773 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.
a. Number and percentage of AFQT category in age group.
b. Number and percentage of total accessions in age group.
c. Number and percentage of total accessions by AFQT category.

Nearly 23 percent of all FY 81 NPS accessions have been in the 22 and over group, with over half of them in AFQT category I through IIIA. Again we see that younger recruits tend to be in a lower category. For example, only 1.6 percent of 17- through 21-year-old recruits are in category I, compared to 5.3 percent of those over 21, and 39.4 percent are in I through IIIA, compared to 53 percent of those over 21.

If the current rates of accessions are projected for the remainder of FY 81, the 22 and over group will total 26,320. Of these, 14,023 would be in category I through IIIA. Table 10 shows the results of increasing the take of the 22 and over age group at current AFQT category rates.

Table 10. Projected increase in total NPS category I-IIIA accessions resulting from increased take in age group 22 and over.

Percent increase of 22 and over group	Increase in I-IIIA	Percent increase in I-IIIA
25% (22.7% to 28.4% of total)	917	1.8
50% (to 34% of total)	1819	3.7
75% (to 39.7% of total)	2737	5.5
100% (to 45.4% of total)	3656	7.4

The Group in Detail

When the 22 and over age group is broken down by year, as shown in table 11, the fact that most (62 percent) accessions in this group fall into the 22 through 24 range becomes clear. It is also evident that the percentage of those in AFQT category I through IIIA tends to increase with age.

Table 11. Army FY 81 NPS over 21-year-old accessions, by age and AFQT category.

AGE	AFQT CATEGORY [a]							TOTAL[b]
	I	II	IIIA	I-IIIA	IIIB	IV	IIIB-IV	
22	164 3.7%	1,195 27.1%	753 17.1%	2,112 47.9%	1,200 27.2%	1,097 24.9%	2,297 52.1%	4,409 27.3%
23	169 5.2%	1,016 30.9%	521 15.8%	1,706 51.9%	821 25.0%	761 23.1%	1,582 48.1%	3,288 20.4%
24	139 6.0%	692 30.2%	368 16.1%	1,199 52.3%	623 27.2%	470 20.5%	1,093 47.7%	2,292 14.2%
25	114 6.8%	510 30.2%	298 17.6%	922 54.6%	422 25.0%	345 20.4%	767 45.4%	1,689 10.5%
26	65 5.2%	436 35.0%	209 16.8%	710 57.0%	291 23.4%	244 19.6%	535 43.0%	1,245 7.7%
27	62 7.2%	303 35.4%	140 16.3%	505 58.9%	185 21.6%	167 19.5%	352 41.1%	857 5.3%
28	44 6.4%	249 36.1%	112 16.2%	405 58.7%	163 23.6%	122 17.7%	285 41.3%	690 4.3%
29 +	103 6.2%	631 37.8%	322 19.2%	1,056 63.2%	374 22.4%	241 14.4%	615 36.8%	1,671 10.3%
TOTAL[c]	860 5.3%	5,032 31.1%	2,723 16.9%	8,615 53.4%	4,079 25.3%	3,447 21.3%	7,526 46.6%	16,141 100%

SOURCE: USAREC Dual Source Master File, as of 17 June 1981.
a. Number and percentage of AFQT category in age group.
b. Number and percentage of total accessions in age group.
c. Number and percentage of total accessions by AFQT category.

IV. UNEMPLOYMENT

Table 12 presents current statistics on unemployment. Although the US Department of Labor keeps track of this information along different age boundaries than the Army, it can still be used to compare the effects of unemployment on various age groups.

Table 12: Unemployment rates by age group, seasonally adjusted.

Month	Age Groups				
	Male	20 - 24 Female	Total	16-65 Total	16-19 Total
81 MAY	14.2	11.4	12.9	7.6	19.5
APR	13.2	10.9	12.1	7.3	19.1
MAR	13.0	10.1	11.7	7.3	19.1
FEB	12.7	10.8	11.8	7.3	19.3
JAN	12.8	10.8	11.9	7.4	19.0
80 DEC	12.5	10.8	11.7	7.4	17.8
NOV	13.2	10.8	10.8	7.5	18.6
OCT	13.8	10.6	12.3	7.6	18.5
SEP	13.5	10.2	12.0	7.4	17.8
AUG	13.9	9.7	17.9	7.6	19.1
JUL	13.4	11.1	12.3	7.8	19.0
JUN	13.8	10.8	12.4	7.7	18.5
MAY	13.7	11.6	12.7	7.8	19.2
AVG	13.3	10.7	12.1	7.5	18.8

SOURCE: US Department of Labor, News, Washington: Bureau of Labor Statistics, 1980 through 1981.

The 20 through 24 age group, which here relates most directly to Army's 22 and older recruits, has experienced an average unemployment rate of 12 percent over the last year. Although this is somewhat below the 19 percent average for the 16- through 19-year-old group, it is still significantly greater than the national average of 7.5 percent for all people in employable age.

This indicates that the over 21 age group is, under the current employment conditions, a viable market for military recruiting. However, it can be expected that an upturn in economy would increase the competition from business and industry for this group more than for people with less experience, and result in a corresponding decrease in their enlistment rate.

V. FINDINGS, CONCLUSION, AND RECOMMENDATIONS

Findings

Of all the over 21-year-old soldiers who joined the Army in FY 81, 53 percent score in the top 50 percentile (category I through IIIA) in the Armed Forces Qualification Test. Only 39 percent of younger soldiers fall in that category.

While the proportion and number of the 17- through 21-year-old group is projected to decline steadily in the U.S. population until the turn of the century, older age groups will either increase or decline at a lower rate.

The Army considers the 17- through 21-year-old group the prime source of its manpower. Its recruiting effort is focused on the inexperienced, unskilled segment of the labor market. Despite this, the over 21-year-old group represents nearly 23 percent, a sizeable portion, of the Army's FY 81 accessions.

Conclusion

From the presented data and findings we conclude that recruitment of a larger proportion of people who are over 21 will result in a substantial increase in soldiers who are above average in mental aptitude.

Recommendations

Based on the assumption that important differences exists between the over 21 and the younger age group; in their general outlook on life, their career and pay expectations, and the factors that motivate them to join the Army, we recommend the following actions:

- o Conduct market research to identify the factors that motivate people who are over 21 years old to join the Army.

- o Design and use recruiting advertising campaigns that appeal to the over 21-year-old age group.

- o Allocate a larger proportion of recruiting resources to the over 21-year-old segment of the recruiting market.

- o Make the Army competitive in the market for people with previous work experience by expanding the "stripes for skills" program to all recruits whose work experience, acquired skills, education, and personal attributes command higher than starting pay in the civilian employment market.

- o Restrict the enlistment of 17-year-old youths to those who are high school graduates or score over 64 (category I or II) on AFQT.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

The Army is striving to improve its combat and cost effectiveness by recruiting a larger number of individuals of higher mental quality. Current recruiting statistics indicate that Army recruits who are over 21 years old tend to score higher on mental aptitude tests than their younger counterparts. This fact, coupled with the projected upward shift in the age distribution of the U.S. population, makes the 22 and older group a lucrative source of high aptitude soldiers. This Research Memorandum presents FY 81 soldier

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accession by age group, AFQT category, sex, and education, and projects increases in accession of high aptitude soldiers that would result from increasing the proportion of the over 21-year-old group in total accessions. A discussion of the effects of unemployment rates on recruiting of the older group is included, and recommended actions are proposed for increasing the enlistment of people who are over 21 years old.

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AD-A104 606 ARMY RECRUITING COMMAND FORT SHERIDAN ILL F/G 5/9
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reflect the factors that motivate people of differing ages and aptitudes to join the Army, i.e., we are actually attracting the higher aptitude segments of the older age groups.

An attempt to determine the relative contribution of these causal factors to the observed relationship between age and AFQT score would be interesting, but beyond the scope of this research memorandum.

In any case, the Army clearly benefits from people with higher AFQT scores. Numerous studies have validated the AFQT as a good predictor of trainability and job performance of soldiers. The current series of ASVAB (series 8, 9, and 10), along with its AFQT portion, has been validated against a good sampling of job performance and training tests (Maier and Grafton 1981).

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II. THE MARKET

Age Distribution in the Population

The impact of reduced birth rates in the 1960's and 1970's will be felt well into the next century. As shown in figure 1, the peak in our birth rate in the years from 1956 to 1958 is reflected in the peaking and subsequent decline of the 17- through 21-year-old group, during the 3-year period from 1977 to 1979. This group is traditionally considered the prime source of military manpower. The same cohort will be the 22- through 26-year age group in the period from 1981 to 1983, and continue to be the largest cohort of young people as long as our definition of "young" applies to them.

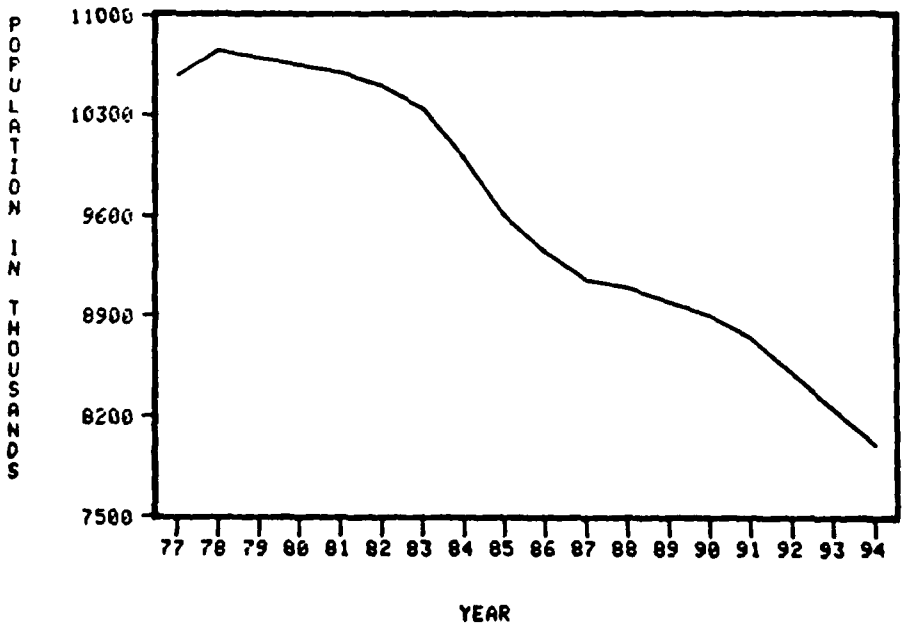

Figure 1. Projection of U.S. 17- through 21-year-old male population.

SOURCE: US Department of Navy, Naval Research Advisory Committee, Report on Man Machine Technology in the Navy. NRAC 80-9. Washington, DC: Office of the Assistant Secretary of the Navy (Research, Engineering and Systems), December 1980, p.7.

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